ABSTRACT

The present invention provides a transmissibility shaping control for active suspension systems. The T-shaping control is a combination of several sub-strategies using the dynamic information in the frequency domain. Each strategy works dominantly in a certain frequency range to achieve a desirable transmissibility for better suspension performance in the corresponding frequency range. Different sub-strategies for different frequency ranges include stiffness control, skyhook control, groundhook control, and various damping levels. In addition, an embodiment is provided utilizing tunable compressible fluid struts in an active vehicle suspension.